Safe subcontracting

Supply of skills, cost reduction, and flexibility… Subcontracting offers a whole range of advantages which manufacturers are eager to seize: 74% of them make use of subcontracting, according to the French statistics board (INSEE). Subcontracting is an integral part of a company's life cycle from its creation, during construction, operation and all the way to dismantling. It is therefore not surprising that subcontractors were involved in 10% of the accidents which occurred between 2015 and 2018 in Installations Classified for the Protection of the Environment (ICPE) and subject to registration or authorisation. However, we mustn't assume that, when an external party is involved in an incident, that they were responsible for the situation. Although this aspect doesn't often appear in the operators' accident analysis, subcontracting a service doesn't mean that the risk is also subcontracted. Though not exhaustive, this sheet describes some of the difficulties involved with subcontracting and provides recommendations to limit the risks.

1. The impact of subcontracting on risk control

1.1. The risk of a loss of expertise among internal staff… and its consequences

Subcontracting can diminish the user company's knowledge of its own facilities and the work being conducted there. This can make it difficult to draft specification documents precisely describing the activities to be subcontracted, though the service provider needs such information to properly estimate the service in terms of expected results and the resourses to be mobilised. The risk is that the supplier's proposal will appear satisfactory, when in fact the allocation of resources (personnel, equipment) is inadequate. The service provider is therefore operating in a degraded situation, and is told to follow potentially inappropriate risk prevention procedures. *Examples: ARIA 45448, 47871, 48294*

The loss of in-house expertise could also complicate the support given the service provider as it performs its mission. Out of tocuh with the realities in the field, internal staff may have difficulty conveying their knowledge, particularly regarding safety instructions. In the same vein: is the supervisory ability of in-house staff always up to the task? The fact that the client's employees no longer perform the technical procedures may reduce their ability to judge the quality of the work carried out. If the company loses practical knowledge about its installations, how can it properly control them? *Examples : ARIA 52089, 51004*

1.2. The problem of concurrent activities

In addition to a lack of clarity for the service provider concerning the work conditions and unfamiliarity with the risks present at the site, there is an additional risk related to concurrent activities. Several interventions may take place at the same time: some performed by the external company and others by the operator or by other service providers. This timing can be problematic, particularly when some of the works conducted by the operator result in changes in the environment, the materials present, the operation of processes… or any other element of the context in which the subcontractor must operate. *Examples: ARIA 50424, 41059, 51652*

Silo explosion linked to inappropriate management of concurrent activities (ARIA 51652)

1.3. Time constraints and hierarchy of relations are sometimes detrimental to risk prevention

The constraint of deadlines weighs on the time allocated to site preparation, monitoring and closure, which is sometimes considered "unproductive" even though these steps are crucial for safety. For practical reasons, the subcontractor's participation in these phases can be complicated, particularly if they are not conducted at the same time as the actual intervention. *Examples: ARIA 49384, 46253, 46694*

In addition, subcontracting often leads to the neglect of tasks with low added-value or those outside the core business activity (cleaning, waste management...). These tasks, which are considered non-strategic, are not always considered in risk analyses. And yet, these peripheral activities can also be a source of accidents.

Finally, the relationship between the client and the subcontractor means that the latter does not always dare raise his concerns (fearing a loss of business) even when he is aware that the intervention will not be performed under optimal conditions. The non-reporting of information is an adverse effect of rating systems applied to service providers.

2. A few recommendations for subcontracting

2.1. Prioritize risk prevention when selecting a service provider and in the contractual framework

National-level contracts, negotiated between the client's central services and the service provider, tend to establish requirements far removed from specific local situations, which may hinder the proper performance of interventions. To remedy this problem, purchasing departments must gain an understanding of operational and field constraints.

As early as the contract stage, the roles and responsibilities of each player must be formally established for the preparation of the site, with everyone's tasks being clearly defined in terms of the checks to be performed before, during and after the works. *Examples: ARIA 49018, 40790, 46253, 43836, 36198, 47654*

Furthermore, if the client does not provide training for the subcontractor's personnel, leaving this obligation instead to the subcontractor, it must inform all those intervening on the site of the risks specific to its installation (with periodic refresher training provided). In addition to checking the certifications held by a subcontracting company, the client should always inquire about the experience of the individual technicians sent by the service provider, with particular attention to temporary and newly hired staff. *Examples: ARIA 44466, 4417, 8781*

2.2. Pay special attention to pre- and post-intervention phases

Risk analysis is the key step before works are performed. It must take into account the unit or the equipment concerned, but also the units and equipment that are connected or located nearby. It must be conducted jointly by the operator and subcontractor to identify the risks for each party, including those related to concurrent activities (to be managed through proper planning and communication with all the departments concerned).

Once prerequisites have been met, works should not commence until the client has performed a mandatory review to ensure that the actual conditions for the intervention comply with what had been planned, particularly regarding lockout/tagout procedures. Upon completion of the work, client acceptance is the ultimate action to detect any defects that may cause accidental damage in the short or long term (e.g.: a residual hot spot). An acceptance inspection after any intervention, backed up by a checklist of points to be verified before putting the site back into operation, is standard practice in the nuclear sector and should be implemented in the field of Installations Classified for the Protection of the Environment (ICPE). *Examples: ARIA 49384, 40790, 46253, 43836, 36198, 47654*

In the case of equipment supply, an inspection conducted by an independent body may be useful to verify the suitability of the equipment and parts delivered. When equipment must meet certain standards, certificates of compliance must be produced by the supplier. *Examples: ARIA 48294, 48555, 51004, 29827*

2.3. Ensure rigorous supervision, adapted to the nature of the risk and the type of work performed by the subcontractor

The operator must have sufficient skills to be able to monitor and evaluate the subcontractor's work: it must either have skills in-house or outsource them. One example is safety advisors for the transport of dangerous goods. Such advisors, requiring training and renewable accreditation, ensure that the operator has the basic knowledge to conduct risk analyses, establish rules, control performance and safety compliance, audit service providers, analyse accidents, etc.

Supervision of the service providers by in-house staff must be contractually established to ensure compliance with procedures and safety measures (with special attention given during periods of reduced activity such as holidays). The use of stopping and alert points during works at the site allows the client and the subcontractor to prioritise risk management and integrate key control points. Though the level of supervision should be high in the case of a first-time subcontractor involved in a risky activity, it can be reduced to a simplified monitoring plan in the case of a well-known and historically reliable subcontractor. *Examples: ARIA 25836, 37944, 49018*

Release of nitrous vapours following an unsupervised unloading operation (ARIA 49018)

2.4. Establish a relationship of trust and dialogue to benefit from feedback

Depending on how the contract is drafted and implemented, the relationship between the client and the subcontractor will not be the same. Though it is important to remain vigilant, clients should take care that the clauses on service performance (including penalties for delays, rating system) don't create an obstacle for the provider to report dysfunctions and other difficulties. Contractual clauses focused on prevention rather than deterrent repression can contribute to risk prevention by allowing better collaboration for accident analysis and the implementation of joint corrective measures. The subcontractor may play an early-warning function, and it is essential that the operator be prepared to listen and react to these alerts. Such feedback can be used to update the safety management system, the prevention plan or the occupational risk evaluation document.

3. Conclusion: when subcontracting enhances risk control

Shifting from "doing it" to "having it done" is no small endeavour for an operator. Creating new tasks (expressing a need), changes in certain departments (increased role for the purchasing department, creation of a project supervisor position)... For a smooth transition, the company must identify these changes and mobilise the necessary resources to handle them.

Despite the difficulties mentioned above, subcontractors can prove to be valuable partners in controlling risks. As experts, they know more about the technology and the risks specific to their activity and therefore are typically better at preventing problems. Thanks to their experience, the subcontractors will theoretically perform technical works more safely and of a higher quality. In addition, the subcontractor serves as a channel for sharing feedback. The expertise of an entire industry of specialised subcontractors working on multiple sites for multiple clients is an asset: local best practices can be transposed to new sites and clients.